Kelvinator

Solar Hot Water Systems

User Manual

Congratulations

Congratulations and thank you for choosing one of our Solar hot water systems. We are sure you will find your new hot water system a pleasure to use. Before you have the hot water system installed, we recommend that you read through the entire user manual, which provides the description of the hot water system and its functions.

To avoid risks and injury, it is important that the hot water system is installed and operated correctly and that you read the safety instructions carefully to avoid misuse and hazards.

Inside this manual you will find many helpful hints on how to use and maintain your hot water system properly.

Just a little preventative care on your part can save you a great deal of time and money over the life of your hot water system. You'll find many answers to common problems in the chart of troubleshooting tips. If you review the chart of troubleshooting tips first, you may not need to call for service.

We recommend that you keep this user manual for reference and pass it on to any future owners.

After unpacking the hot water system please check it is not damaged. If in doubt, do not use the hot water system but contact your local Electrolux Customer Care Centre.

Meanings of symbols used in this manual are shown below:

warning

This symbol indicates information concerning your personal safety

caution

This symbol indicates information on how to avoid damaging the hot water system

environmental tips

This symbol indicates tips and information about economical and ecological use of the hot water system

Contents

environmental tips

Information on disposal for users

- Most of the packing materials are recyclable. Please dispose of those materials through your local recycling depot or by placing them in appropriate collection containers.
- If you wish to discard this hot water system, please contact your local authorities and ask for the correct method of disposal.

Conditions of use

This appliance is intended to be used in household and similar applications such as :

- staff kitchen areas in shops, offices and other working environments.
- farm houses.
- by clients in hotels, motels and other residential type environments.
- bed and breakfast type environments

Important

This User Manual has been prepared for owners and users of the hot water system. Please keep it in a safe place for future reference.

warning

Installation must be performed by a qualified installer (for example, a licensed plumber or gas fitter).

caution

- Contact an authorised service technician for repair or maintenance of this hot water system.
- If any power cord or cable is damaged and needs to be replaced, replacement work must be performed by authorised personnel only.
- Installation work must be performed in accordance with national standards by authorised personnel only. Wrong connection can cause over heating or fire.
- This hot water system should be installed in accordance with AS/NZS 3000 and your electricity suppliers rules.

For the installer

The installation must be completed in accordance with the information supplied in the Installation Manual that comes with your solar hot water system.

All other relevant National, State or Local regulations must also be conformed with and these include (but are not limited to):

- Australian Standard AS3500.1 – Water Supply
- Australian Standard AS3500.4 – Hot Water Supply
- Australian Standard AS3000 – Electrical Installation
- Australian Gas Association Code AS5601 – Gas Appliance Installation
- Local Water, Gas & Electrical Authority Regulations Municipal Building Codes
- The solar hot and solar cold pipes between the hot water storage tank and solar collectors MUST BE copper and fully insulated with closed cell polymer insulation or similar (minimum thickness of 20mm). Thicker insulation may be required to comply with the requirements of AS/NZS 3500.4.
- The insulation must be weatherproof and UV resistant if exposed to sunlight. All compression fittings must use brass or copper olives.
- Plastic pipe MUST NOT be used, as it will not withstand the temperature and pressure of the water generated by the solar collectors under stagnation conditions. The solar collector can generate extremely high water temperatures up to 272°C. Plastic pipe can not withstand these temperatures and MUST NOT be used. Failure of plastic pipe can lead to the release of high temperature water and cause severe water damage and flooding.
- The minimum supply water pressure for correct operation is 150kPa. If the supply water pressure could exceed 600kPa, a 600kPa pressure limiting valve must be installed.
- If the solar hot water system is electric boosted, the heating element is designed to be connected to extended off peak and not standard off peak (also called off peak 1).

This symbol indicates never to do this

This symbol indicates always do this

warning

✓	**Connect with power supply properly.** Otherwise, it may cause electric shock or fire due to excess heat generation.
✓	**Always ensure effective earthing.** No earthing may cause electric shock.
✓	**Disconnect the power to the hot water system and turn off the gas inlet valve to the gas booster if smoke, strange sounds or smells are coming from the system.** It may cause fire or electric shock.
⊘	**Do not operate or stop the hot water system by switching on or off the power.** It may cause electric shock or fire due to heat generation.
⊘	**Do not use a damaged or unspecified power cord.** It may cause electric shock or fire. If a power cord is damaged, it must be replaced by the manufacturer or an authorised service centre or a similarly qualified person in order to avoid a hazard.
⊘	**Do not modify power cord length or share the outlet with other appliances.** It may cause electric shock or fire due to heat generation.
⊘	**Do not operate with wet hands or in damp environment.** It may cause electric shock.
⊘	**Do not allow water to run into electric parts.** It may cause failure of machine or electric shock.
⊘	**Do not use the socket if it is loose or damaged.** It may cause fire and electric shock.
⊘	**Do not open the hot water system during operation.** It may cause electric shock.
⊘	**Do not allow any power cords or cables to rest close to hot surfaces.** It may cause fire and electric shock.
⊘	**Do not disassemble or modify the hot water system.** It may cause failure and electric shock.

Important safety instructions

Ensure the following safety instructions are read and understood before using this hot water system.

warning

Water temperatures above 50°C can cause severe burns, scalding or death. Feel the water temperature before bathing or showering. Do not leave children unsupervised.

Under AS/NZS 3500 the temperature of the hot water being delivered must not exceed 50°C at any outlets used primarily for purposes of personal hygiene. To comply with these standards, a tempering valve must be fitted to the hot water system.

warning

- For continued safety of this appliance it must be installed, operated and maintained in accordance with the manufacturers instructions.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- Do not use this hot water system if it has at any stage been immersed in water. Immediately call a licensed plumber, gas fitter or authorised technician to inspect and/or service the system.
- Do not disconnect the electrical supply if the ambient temperature drops below freezing. The Freeze Protection System only works when the hot water system is connected to the power.
- In order to avoid electric shock, fire or injury, if any abnormality is detected, such as the smell of smoke coming from the hot water system, isolate the power at the main switchboard then contact your local Electrolux Customer Care Centre.
- Never use a flammable spray such as hair spray or lacquer paint near the hot water system as it may cause a fire.
- The operation of the thermal cut-out on the hot water storage tank indicates a possibly dangerous situation (electric boosted installations only). Do not reset the thermal cut-out until the hot water system has been serviced by a qualified person.

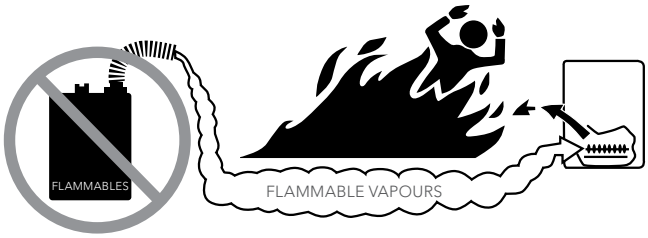
caution

- Do not use this hot water system for any other purposes.
- Do not place items which may be damaged by moisture around the hot water system or near the drain outlets.
- Water may drip from the discharge pipe of the pressure relief valve. This pipe must be left open to the atmosphere at all times.
- The pressure relief device is to be operated regularly to remove lime deposits and verify that it is not blocked.

warning

Important safety instructions for gas boosted systems

- If you smell gas or smoke coming from the hot water system:
  - Do not try to light the hot water system
  - Do not touch any electric switches
  - Do not use any phone in your building
  - Isolate the power at the main switchboard
  - Check and isolate the main gas valve
  - Immediately call your gas supplier from a neighbour's phone. Follow the gas supplier's instructions
  - If you cannot reach the gas supplier, call the fire department



- Do not try to light the burner manually. It is equipped with an electronic ignition device which automatically lights the burner.
- Open the main gas supply valve to the unit using only your hand to avoid any spark. Never use tools. If the knob will not turn by hand do not try to force it, call a qualified service technician. Forcing the valve may result in fire or explosion due to gas leaks.

Please refer to the User Manual supplied with the gas continuous flow hot water system for more specific safety and operating instructions.

Your solar hot water system components (please tick)

Electric boosted

Collector type – ☐ Evacuated Tube (KCPE12A)
☐ Flat Panel (KCPF20A)

No. of collectors – ☐ 1 ☐ 2 ☐ 3

Hot water – storage tank ☐ 270L (KTC27000A)
☐ 340L (KTC34000A)

Power supply tariff for boost element –
☐ Continuous
☐ Extended Off Peak

Gas boosted

Collector type – ☐ Evacuated Tube (KCPE12A)
☐ Flat Panel (KCPF20A)

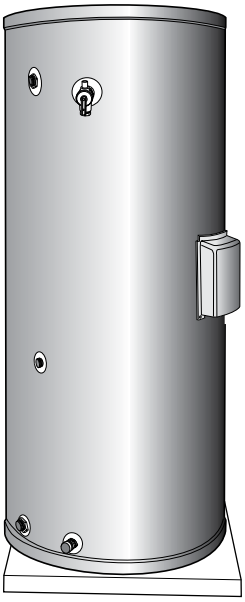
No. of collectors – ☐ 1 ☐ 2 ☐ 3

Hot water – storage tank ☐ 270L (KCT27036A)
☐ 340L (KCT34036A)
☐ 450L (KCT45036A)

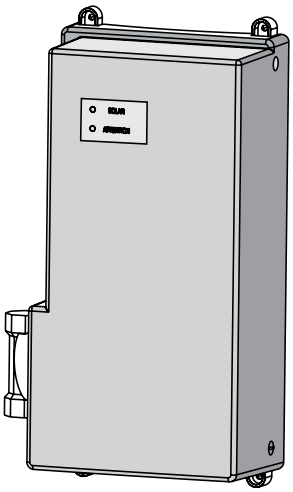
Gas continuous flow water heater – ☐ 26L Natural gas (KGC26SNA)
☐ 26L LPG gas (KGC26SLA)

When calling the service centre, please refer to this section of the user manual as it will help in describing your solar hot water system and quoting the model numbers of its various components.

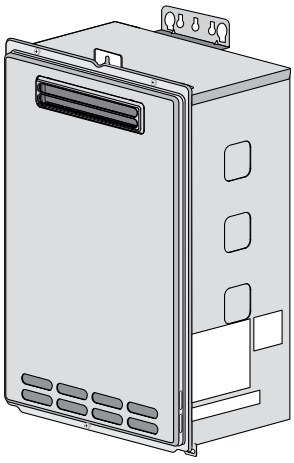
Hot Water System Model Number (for STC registration): _____
Serial numbers: _____
_____
Installation date: _____
Installed by: _____
Notes: _____
_____



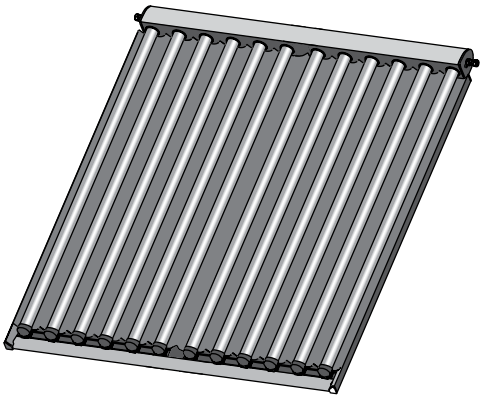
hot water storage tank



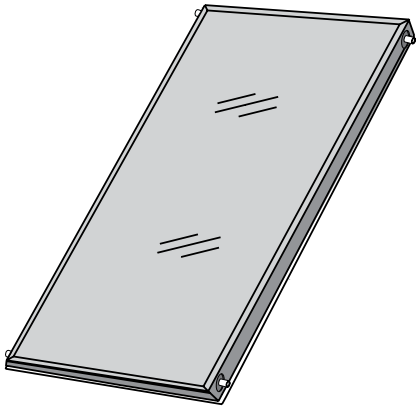
solar controller



gas continuous flow water heater



solar evacuated tube collector



solar flat panel collector

Information required to claim your STCs

System type	System model no.	Description
Solar Electric Boosted Flat Panel Collector	KSE270F2A-C	Kelvinator Solar Electric boosted-270L tank- 2 flat panels - Continuous tariff
	KSE270F2A-OP2	Kelvinator Solar Electric boosted-270L tank- 2 flat panels - Off peak 2
	KSE270F3A-C	Kelvinator Solar Electric boosted-270L tank- 3 flat panels - Continuous tariff
	KSE270F3A-OP2	Kelvinator Solar Electric boosted-270L tank- 3 flat panels - Off peak 2
	KSE340F2A-C	Kelvinator Solar Electric boosted-340L tank- 2 flat panels - Continuous tariff
	KSE340F2A-OP2	Kelvinator Solar Electric boosted-340L tank- 2 flat panels - Off peak 2
	KSE340F3A-C	Kelvinator Solar Electric boosted-340L tank- 3 flat panels - Continuous tariff
	KSE340F3A-OP2	Kelvinator Solar Electric boosted-340L tank- 3 flat panels - Off peak 2
	KSE450F3A-C	Kelvinator Solar Electric boosted-450L tank- 3 flat panels - Continuous tariff
	KSE450F3A-OP2	Kelvinator Solar Electric boosted-450L tank- 3 flat panels - Off peak 2
Solar Electric Boosted-Evacuated tube collector	KSE270E2A-C	Kelvinator Solar Electric boosted-270L tank- 2 Evacuated tube collectors - Continuous tariff
	KSE270E2A-OP2	Kelvinator Solar Electric boosted-270L tank- 2 Evacuated tube collectors - Off peak 2
	KSE270E3A-C	Kelvinator Solar Electric boosted-270L tank- 3 Evacuated tube collectors -Continuous tariff
	KSE270E3A-OP2	Kelvinator Solar Electric boosted-270L tank- 3 Evacuated tube collectors - Off peak 2
	KSE340E2A-C	Kelvinator Solar Electric boosted-340L tank- 2 Evacuated tube collectors - Continuous tariff
	KSE340E2A-OP2	Kelvinator Solar Electric boosted-340L tank- 2 Evacuated tube collectors - Off peak 2
	KSE340E3A-C	Kelvinator Solar Electric boosted-340L tank- 3 Evacuated tube collectors - Continuous tariff
	KSE340E3A-OP2	Kelvinator Solar Electric boosted-340L tank- 3 Evacuated tube collectors - Off peak 2
	KSE450E3A-C	Kelvinator Solar Electric boosted-450L tank- 3 Evacuated tube collectors - Continuous tariff
	KSE450E3A-OP2	Kelvinator Solar Electric boosted-450L tank- 3 Evacuated tube collectors - Off peak 2
Solar Gas Boosted-Flat Panel Collector	KSN27026F2A	Kelvinator Solar Gas boosted-270L tank - 2 Flat panels-Natural Gas
	KSL27026F2A	Kelvinator Solar Gas boosted-270L tank - 2 Flat panels-LPG
	KSN27026F3A	Kelvinator Solar Gas boosted-270L tank - 3 Flat panels-Natural Gas
	KSL27026F3A	Kelvinator Solar Gas boosted-270L tank - 3 Flat panels-LPG
	KSN34026F2A	Kelvinator Solar Gas boosted-340L tank - 2 Flat panels-Natural Gas
	KSL34026F2A	Kelvinator Solar Gas boosted-340L tank - 2 Flat panels-LPG
	KSN34026F3A	Kelvinator Solar Gas boosted-340L tank - 3 Flat panels- Natural Gas
	KSL34026F3A	Kelvinator Solar Gas boosted-340L tank - 3 Flat panels- LPG
Solar Gas Boosted-Evacuated tube Collector	KSN27026E2A	Kelvinator Solar Gas boosted-270L tank- 2 Evacuated tube collectors -Natural Gas
	KSL27026E2A	Kelvinator Solar Gas boosted-270L tank- 2 Evacuated tube collectors - LPG
	KSN27026E3A	Kelvinator Solar Gas boosted-270L tank- 3 Evacuated tube collectors - Natural Gas
	KSL27026E3A	Kelvinator Solar Gas boosted-270L tank- 3 Evacuated tube collectors - LPG
	KSN34026E2A	Kelvinator Solar Gas boosted-340L tank- 2 Evacuated tube collectors - Natural Gas
	KSL34026E2A	Kelvinator Solar Gas boosted-340L tank- 2 Evacuated tube collectors - LPG
	KSN34026E3A	Kelvinator Solar Gas boosted-340L tank- 3 Evacuated tube collectors - Natural Gas
	KSL34026E3A	Kelvinator Solar Gas boosted-340L tank- 3 Evacuated tube collectors - LPG

How your solar hot water system works

Depending on your system configuration, solar energy is collected by either one to three flat panel collectors or one to three evacuated tube collectors and used to heat water inside the collector. This water (when hot enough) is circulated using a pump inside a solar controller which is fixed to the storage tank located on the ground. If there is solar gain, the solar controller will circulate water from inside the storage tank, through the collector(s) and back to the tank. Depending on your system, the storage tank capacity may be 270L, 340L or 450L.

Your solar hot water system is also boosted by one of two methods of heating (depending on your system configuration) to ensure it delivers hot water all year round and also to kill any bacteria (including Legionella) originating in your water supply. The two methods of boosting your solar hot water system are as follows:

Electric boosted

If your system is electric boosted, your storage tank will have an electric element inside it that will ensure the water inside your tank is at least 60°C when power is available to the element. If the water temperature inside the tank is kept above this level by the solar collector(s) then the element will not need to operate. The boosting element may be connected to a continuous or an off peak power supply. It is designed to be installed on extended off peak which is available up to 18 hours of the day compared to the standard off peak available only 8 hours. If standard off peak is supplied to the premises, it is recommended to contact your electrical supplier and get it changed to extended off peak to ensure the correct performance of the hot water system.

Gas boosted

If your system is gas boosted, a gas continuous flow water heater will be installed on the outlet piping of the storage tank. The gas continuous flow water heater monitors the temperature of the water (when passing through it) and if it is less than 55°C, will start up and boost the temperature of the water to an acceptable level using the minimum amount of gas required. If however the temperature of the water passing through the unit is above 55°C, it will not need to operate, minimising your gas consumption. For more detailed information about the gas continuous flow water heater please see the user manual supplied with it.

Solar availability and limitations

Since the collector takes its energy directly from the sun, it is limited by the weather conditions and the amount of solar radiation available. During winter months the hours of sunlight are shorter and the sun is lower in the sky, the further you are from the equator the greater this effect will be. What this means is that the solar radiation produced by the sun during the day will not last as long or hit the collectors at the optimum angle and as such their efficiency will be reduced.

The recommended direction for the collector panels to face is true north (in the southern hemisphere) however this may not be possible in all situations due to the availability of roof space or the exact direction in which the roof faces. Facing the collector panels in a direction other than true north will reduce their efficiency.

The amount of solar radiation that the collectors receive may also be reduced by cloud cover or pollution in your area.

Freeze protection

The solar collectors and pump controller system have been approved to level two frost protection and can therefore withstand frosty conditions.

The anti-freeze protection system works by circulating warmer water from the tank through the collectors when it detects the collector is at risk of freezing. This protection is built into the software of the solar controller and as such there is no need for monitoring or intervention. However, power will need to be applied to the solar hot water system at all times in order for the anti-freeze protection system to operate. If the system is to be without power for an extended period of time and frost damage conditions are possible, please drain the entire solar hot water system of water to prevent damage.

If your system is gas boosted, please see the user manual supplied with the gas continuous flow unit for its own level of frost protection and methods of draining during frosty conditions.

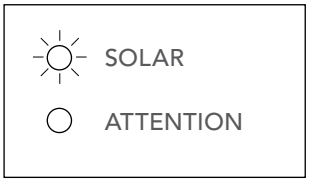
Solar controller operation

The primary task of the solar controller is to control the operation of the circulating water pump in order to optimise solar energy collection. This function is performed by measuring the temperature difference between the collectors and the storage tank. When the temperature difference exceeds 10°C the pump is activated and water circulates from inside the storage tank, through the collectors and back to the tank.

The secondary task of the solar controller is to stop solar energy collection when the tank is already full of hot water. This is referred to as no-load protection and the pump will not operate if the temperature of the water going to the collectors exceeds 72°C. At such a temperature in the base of the storage tank, the water temperature at the top of the tank is expected to be even higher.

The third task of the solar controller is to prevent water inside your solar hot water system from freezing during frosty conditions and damaging the components. This operation works by circulating warm water from your storage tank to the collectors and back to your tank. It is important to ensure that power is always available to the solar controller in order for the freeze protection operation to occur.

During these entire operations the green LED marked "SOLAR" will remain on, indicating that the solar controller is operating correctly.



The temperature settings for the solar hot water system are factory pre-set to ensure optimum energy efficiency whilst providing Legionella bacteria protection. The temperature settings are therefore not adjustable by the customer or installer.

Maintaining your system

Cleaning the solar collectors

Over time dust and debris may build up on the collectors, reducing their efficiency. It is recommended that you have the collectors cleaned periodically by a suitably equipped maintenance person. All relevant safety precautions must be followed to ensure the safety of all persons and to prevent damage to the collectors or personal property.

Replacing the glazing of collectors

The glass on the collector is designed to withstand impact and to be hail resistant. If however the glass on the collector is cracked or damaged in any way, please contact the service department to source and install genuine replacement parts (see contact details in warranty section).

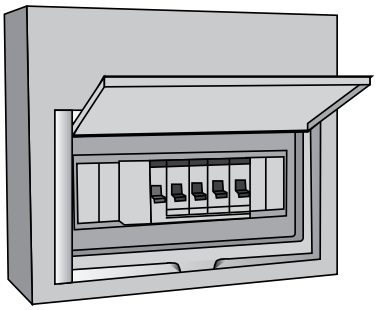
warning

Do not attempt to repair or allow unauthorized persons to repair the collector as a hazardous situation may arise.

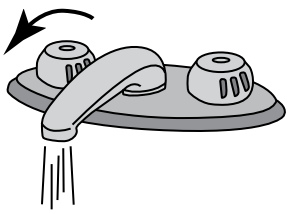
Drainage or flushing of tank

To flush or drain the storage tank:

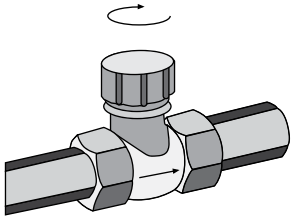
1. The power to the hot water system must be turned off at the switchboard. Locate and turn off the circuit breaker that supplies the hot water system or remove its fuse.



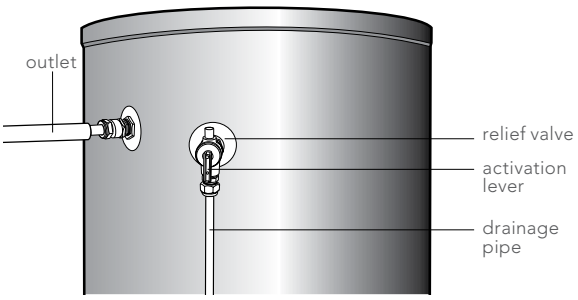
2. The water inside the tank will be extremely hot. Turn on the nearest hot water tap and allow it to run until the water coming out has reached a safe temperature for draining.



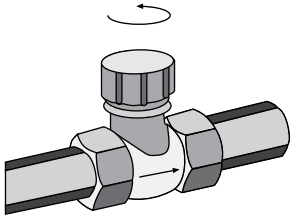
3. Before draining the hot water system assess the best area for the water to be directed (i.e. an outside drain) where it will not damage to any property or cause an unsafe situation to arise.
4. Turn off the mains water supply to the hot water system using the isolation valve located on the inlet piping.



5. Release the pressure inside the tank by lifting up the lever on the pressure and temperature relief valve. Caution should be taken so the lever does not snap back as it could damage the valve seat. Once the lever is activated water will be discharged from the relief valve drainage pipe, relieving the pressure inside the storage tank.

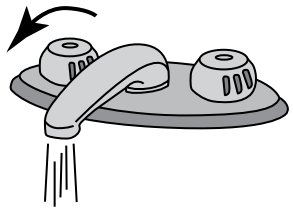


6. When water has stopped discharging from the relief valve drainage pipe, this indicates that the pressure inside the tank has now been reduced to atmospheric pressure. De-activate the lever on the relief valve, returning it to its normal position.
7. Drain the storage tank by undoing the connection to the tank inlet and placing your drainage solution in position as needed. Activate the relief valve lever, releasing the vacuum and allowing air to flow into the tank as the water drains out. Whilst the storage tank is draining, continually monitor the process and most importantly where the water is draining to. If at any time the draining needs to be halted, simply de-activate the relief valve lever.
8. Once the storage tank has been fully drained, flush the system by inserting a garden hose into the inlet of the storage tank. Allow water to enter the inlet and drain several times to ensure that all sediment is removed.
9. De-activate the relief valve, returning it to its normal position.
10. Reconnect the inlet piping to the storage tank and then turn on the isolation valve, located on the inlet piping to allow mains water to refill the tank.



Maintaining your system

11. Turn on the nearest hot water tap to allow air to be expelled from the system. Once water has begun to flow freely from the tap for a period of time and all air has been expelled from the system, close the hot water tap.



12. Clean all filters in the hot water system including any that may be located on individual fixtures as they may have become blocked by debris during the process of flushing and draining of the hot water system.
13. Check that all isolation valves that are designed to be open during normal operation of the hot water system are fully open.
14. The power to the hot water system can now be turned on at the switchboard.

Note:
Since the water inside the storage tank will now be cold, it may take some time for the water to return to its optimum operating temperature.

Pressure and temperature relief valve (PTR valve)

We recommend you gently operate the easing lever on the relief valve at least once every 6 months. We also recommend that this relief valve be checked regularly to ensure it is not continually leaking or that the discharge piping connected to the valve is not blocked, or at risk of freezing.

warning

Failure to operate the relief valve easing gear at least once every six months may result in the hot water storage tank failing or in extreme cases exploding. Continuous leakage of water from the valve may indicate a problem with the hot water system.

Water quality

Water quality can vary in different locations and affect the performance and safe operation of the hot water system. If the water supply is not within the acceptable limits as indicated below, the hot water system should not be installed, and will not be covered by warranty from the manufacturer. A suitable solution is to implement a water pre-treatment process to bring the water quality to within acceptable limits to support the installation.

The saturation index (SI) is a measure of the corrosive or scaling properties of the water supply. Corrosive water (SI<-1.0) can corrode copper components. In these conditions warranty will not apply. Scaling water (SI>0.5) can cause build up of CaCO3 (Calcium carbonate) which can impact to the correct operation of moving parts within the system, including the temperature and pressure relief valve. In these conditions warranty will not apply.

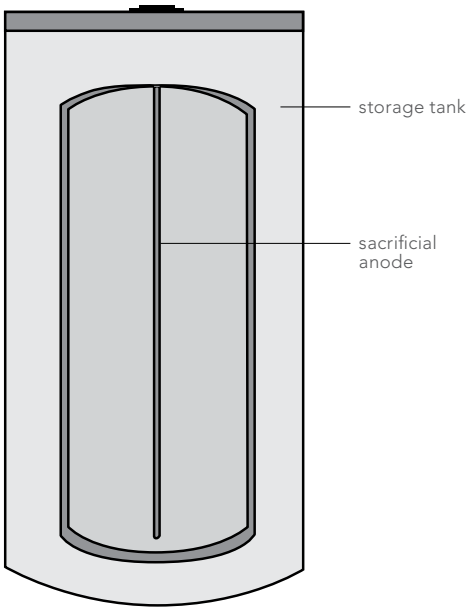
Total Dissolved Solids (TDS) and water hardness can also impact the life of the hot water system, and warranty does not apply outside the following limits:

- TDS exceeding 600 p.p.m
- Electrical conductivity exceeding 850us/cm
- Total hardness exceeding 200 p.p.m
- Chloride exceeding 250 p.p.m
- Magnesium exceeding 10 p.p.m
- Sodium exceeding 150 p.p.m
- Acidity/Alkalinity must also be within the limits of pH 6.5 - 8.5

Anode replacement

There is a sacrificial anode installed in the storage tank (two in the 450L model) designed to protect the vitreous enamel coated steel tank from corrosion. The anode will slowly oxidise while protecting the steel tank liner, reducing its effectiveness in protecting the tank from rusting over time.

The anode must therefore be inspected and replaced (as required) every 2 to 5 years depending on the supply water quality, in order to keep the storage tank warranty valid. The anode inspection and replacement must be conducted by an authorised service person or plumber and be replaced by a manufacturer authorised spare part, which can be sourced from the Electrolux spare parts division (see contact details in warranty section).



warning

If the hot water system is not used for two weeks or more, a quantity of highly flammable hydrogen gas may accumulate in the storage tank. To dissipate this gas safely, it is recommended that a hot tap be turned on for several minutes or until discharge of gas ceases. Use a sink, basin, or bath outlet, but not a dishwasher, clothes washer, or other appliance. During this procedure, there must be no smoking, open flame, or any electrical appliance operating nearby. If hydrogen is discharged through the tap, it will probably make an unusual sound as with air escaping.

Troubleshooting

Before calling for service, please check the following:

Problem	Possible solutions
It takes a long time to get hot water at the fixtures	The time it takes to deliver hot water from your storage tank to your fixtures depends on the length and size of the piping between the two and also the flow rate of the water to the fixture. A longer distance, larger pipe diameter or slower flow rate will all affect how long it takes hot water to reach your fixture. This is part of the normal operation of the hot water system and not a product fault.
The water is cold or not hot enough	If a large amount of hot water has been used throughout the day, or the system has been newly commissioned or drained, it may take some time for the water temperature inside the tank to reach a normal level (electric boosted only).
	Check that power is available to the solar controller and the green led marked 'SOLAR' is lit
	Check that power is turned on to the storage tank element. If the tank element is installed on an off- peak power supply, power may only be available at certain times of the day (electric boosted).
	Check that there is power and gas available to the gas continuous flow water heater (gas boosted only).
	Check there is enough flow coming from the fixture to start the gas continuous flow water heater (gas boosted only).
	Check for cross plumbing between the cold water and hot water lines if there has been new plumbing carried out recently.
	If the tank element is installed on off peak, check with your power provider that you are on extended off peak or off peak 2 tariff. This appliance is not designed for installation on standard off peak or off peak 1.
The water is too hot	Check with a thermometer if the water temperature in the bathroom is over 50°C, if so the tempering valve may have an incorrect setting or be malfunctioning. Please call a service technician.
Water is discharging from the relief valve drainage pipe	It's normal for a small amount of water to discharge during heating to allow for hot water expansion. However if the relief valve appears to be continually leaking water, activate the relief valve lever once or twice and then check to see if the leak stops. If the relief valve is still leaking this could indicate a problem with your solar hot water system, please call a service technician.
The solar controller red LED is flashing	Check that the temperature sensors are installed, undamaged and connected to the solar controller.
	The pipework to and from the collectors may be blocked or have air inside it. Cycle power to the solar controller and see if the LED's return to normal. If the red LED begins to flash again, call a service technician.
The gas continuous flow water heater appears to be malfunctioning (gas boosted systems only)	Check the user manual supplied with the gas continuous flow water heater for more specific troubleshooting solutions. If the unit is still malfunctioning, call a service technician.
Rumbling or hammering sound coming from the hot water system	This happens when very hot water that has flashed into steam (under stagnation conditions) comes into contact with cooler water and is part of the normal operation of the hot water system.
Hot water system is suspected to be frozen	If there has recently been very frosty conditions and you suspect your hot water system has become frozen, first ensure power is available to the hot water system and then call service technician to inspect it.
Steam is coming from the vent valve installed on the outlet of the collectors	Under no-load conditions the water in the collectors will not be circulating and may flash into steam. This steam may vent off as part of the no-load protection in order to avoid pressure building up inside the collectors. This is part of the normal operation of the hot water system and not a product fault.

Electrolux Warranty

FOR SALES IN AUSTRALIA AND NEW ZEALAND
APPLIANCE: HOT WATER SYSTEMS

This document sets out the terms and conditions of the product warranties for Electrolux Appliances. It is an important document. Please keep it with your proof of purchase documents in a safe place for future reference should you require service for your Appliance.

1. In this warranty
   (a) 'acceptable quality' as referred to in clause 10 of this warranty has the same meaning referred to in the ACL;
   (b) 'ACL' means Trade Practices Amendment (Australian Consumer Law) Act (No.2) 2010;
   (c) 'Appliance' means any Electrolux product purchased by you accompanied by this document;
   (d) 'ASC' means Electrolux' authorised serviced centres;
   (e) 'Electrolux' means Electrolux Home Products Pty Ltd of 163 O'Riordan Street, Mascot, NSW 2020, ABN 51 004 762 341 in respect of Appliances purchased in Australia and Electrolux (NZ) Limited of 3-5 Niall Burgess Road, Mount Wellington, in respect of Appliances purchased in New Zealand;
   (f) 'major failure' as referred to in clause 10 of this warranty has the same meaning referred to in the ACL and includes a situation when an Appliance cannot be repaired or it is uneconomic for Electrolux, at its discretion, to repair an Appliance during the Warranty Period;
   (g) 'Warranty Period' means:
      (i) where the Appliance is used for personal, domestic or household use (i.e. normal single family use) as set out in the instruction manual, the Appliance is warranted against manufacturing defects in Australia and in New Zealand for the period of 1 year, following the date of original purchase of the Appliance. Specific components are warranted against manufacturing defects in Australia for the periods listed below if there is evidence provided to Electrolux that the Appliance was installed by a licensed plumber; and in New Zealand if there is evidence that the Appliance was installed according to the Electrolux installation guidelines which can be inspected on the Kelvinator website;
         • Hot water tank cylinders - parts 5 years , labour 3 years
         • Continuous Gas
           - Heat Exchanger – parts 10 years, labour 3 years
           - all others components - parts 3 years, labour 3 years
         • Heat Pump Refrigerant Sealed System - 2 years parts and labour
         • Solar Collectors - parts 5 years, labour 3 years, 1 year for all other parts (mounting and connection sets)
      (ii) where the Appliance is used for commercial purposes (including being used to directly assist a business or where the Appliance is used in a multi-family communal or share type environment), the Appliance will then be warranted against manufacturing defects in Australia for 0 years and in New Zealand for 0 years, following the date of original purchase of the Appliance.
   (h) 'you' means the purchaser of the Appliance not having purchased the Appliance for re-sale, and 'your' has a corresponding meaning.
2. This warranty only applies to Appliances purchased and used in Australia or New Zealand and is in addition to (and does not exclude, restrict, or modify in any way) any non-excludable statutory warranties in Australia or New Zealand.
3. During the Warranty Period Electrolux or its ASC will, at no extra charge if your Appliance is readily accessible for service, without special equipment and subject to these terms and conditions, repair or replace any parts which it considers to be defective. Electrolux or its ASC may use remanufactured parts to repair your Appliance. You agree that any replaced Appliances or parts become the property of Electrolux. This warranty does not apply to light globes, batteries, filters or similar perishable parts.
4. Parts and Appliances not supplied by Electrolux are not covered by this warranty.
5. You will bear the cost of transportation, travel and delivery of the Appliance to and from Electrolux or its ASC. If you reside outside of the service area, you will bear the cost of:
   (a) travel of an authorised representative;
   (b) transportation and delivery of the Appliance to and from Electrolux or its ASC,

   In all instances, unless the Appliance is transported by Electrolux or an Electrolux authorised representative, the Appliance is transported at the owner's cost and risk while in transit to and from Electrolux or its ASC.
6. Proof of purchase is required before you can make a claim under this warranty.
7. You may not make a claim under this warranty unless the defect claimed is due to faulty or defective parts or workmanship. Electrolux is not liable in the following situations (which are not exhaustive):
   (a) the Appliance is damaged by:
      (i) accident
      (ii) misuse or abuse, including failure to properly maintain or service
      (iii) normal wear and tear
      (iv) power surges, electrical storm damage, excessive water pressure, excessive inlet water temperature or incorrect power supply
      (v) incomplete or improper installation
      (vi) incorrect, improper or inappropriate operation
      (vii) insect or vermin infestation
      (viii) failure to comply with any additional instructions supplied with the Appliance;
      (ix) quality of water that is not in accordance with the "Water Quality" guidelines in the installation instructions;
   (b) the Appliance is modified without authority from Electrolux in writing;
   (c) the Appliance's serial number or warranty seal has been removed or defaced;
   (d) the Appliance was serviced or repaired by anyone other than Electrolux, an authorised repairer or ASC.
8. This warranty, the contract to which it relates and the relationship between you and Electrolux are governed by the law applicable where the Appliance was purchased. Where the Appliance was purchased in New Zealand for business purposes the Consumer Guarantee Act does not apply.
9. To the extent permitted by law, Electrolux excludes all warranties and liabilities (other than as contained in this document) including liability for any loss or damage whether direct or indirect arising from your purchase, use or non use of the Appliance.
10. For Appliances and services provided by Electrolux in Australia, the Appliances come with a guarantee that cannot be excluded under the ACL. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the Appliance repaired or replaced if the Appliance fails to be of acceptable quality and the failure does not amount to a major failure. The benefits to you given by this warranty are in addition to your other rights and remedies under a law in relation to the Appliances or services to which the warranty relates.
11. At all times during the Warranty Period, Electrolux shall, at its discretion, determine whether repair, replacement or refund will apply if an Appliance has a valid warranty claim applicable to it.
12. For Appliances and services provided by Electrolux in New Zealand, the Appliances come with a guarantee by Electrolux pursuant to the provisions of the Consumer Guarantees Act, the Sale of Goods Act and the Fair Trading Act.
13. To enquire about claiming under this warranty, please follow these steps:
   (a) carefully check the operating instructions, user manual and the terms of this warranty;
   (b) have the model and serial number of the Appliance available;
   (c) have the proof of purchase (eg an invoice) available;
   (d) telephone the numbers shown below.
14. You accept that if you make a warranty claim, Electrolux and its ASC may exchange information in relation to you to enable Electrolux to meet its obligations under this warranty.

Important Notice

Before calling for service, please ensure that the steps listed in point 13 above have been followed.

FOR SERVICE or to find the address of your nearest state service centre in Australia **PLEASE CALL 13 62 26** For the cost of a local call (Australia only)	**SERVICE AUSTRALIA** Electrolux ELECTROLUX HOME PRODUCTS www.electrolux.com.au	**FOR SPARE PARTS** or to find the address of your nearest state spare parts centre in Australia **PLEASE CALL 1300 666 019** For the cost of a local call (Australia only)
FOR SERVICE or to find the address of your nearest authorised service centre in New Zealand **FREE CALL 0800 10 66 10** (New Zealand only)	**SERVICE NEW ZEALAND** Electrolux ELECTROLUX HOME PRODUCTS www.electrolux.co.nz	**FOR SPARE PARTS** or to find the address of your nearest state spare parts centre in New Zealand **FREE CALL 0800 10 66 20** (New Zealand only)

KHWS_Warr_Oct11

If you'd like further information about Kelvinator appliances, please visit your retailer, phone or email our Customer Care team or visit our website.

telephone: 1300 363 640
fax: 1800 350 067
email: customercare@electrolux.com.au
web: www.kelvinator.com.au

Kelvinator. We are part of the Electrolux family.
Share more of our thinking at www.electrolux.com.au

P/No. KHWSGENU/1

Print code: KMAN_KHWSUM_Oct11